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10/674,409	10/01/2003	Thomas M. Fudali	66396-072	5122

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EXAMINER	
BODDIE, WILLIAM	
ART UNIT	PAPER NUMBER
2629	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/674,409	FUDALI ET AL.	
	Examiner	Art Unit	
	WILLIAM BODDIE	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *8/18/11*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1-24* is/are pending in the application.

5a) Of the above claim(s) *10-24* is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-9* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. In an amendment dated, August 18th, 2011, the Applicants amended claim 1. Currently claims 1-9 are pending.

Response to Arguments

2. Applicant's arguments filed August 18th, 2011 have been fully considered but they are not persuasive.

3. On page 8 of the Remarks, the Applicants argue that Beaton does not teach using “pressure to *further* define a finger tip-sized contact area, as claimed.”

4. The Examiner respectfully disagrees. It should first be noted what the current claim states, "the contact area of the touch sensitive active region is further defined responsive to a pressure." Forgetting the 35 USC 112 concerns discussed below, there is no requirement in the current phrasing of claim 1 which states that the pressure further defines a **finger tip-sized** contact area. All that is required in the last paragraph of the claim is that the contact area be further defined by the pressure applied. Applicants appear to be referencing the newly added element in the claim which states the contact area is the same size as a finger tip contact area. Notably absent, however, is any requirement that the contact area of the touch screen active region is **always** the size of a finger tip contact area. A broader, yet reasonable, interpretation of the current claim language allows that the contact area not always be the size of a finger tip area. With such an interpretation, the “further defined" phrasing is still met by the Beaton reference which switches between stylus icons and fingertip sized icons based on the pressure applied.

5. As shown above the rejections of claims 1-9 are still seen as proper. The claims have been updated below to reflect the newly added limitations, but have otherwise been maintained.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

8. There seems to be a significant difference of viewpoint with regards to the definition of contact area and touch sensitive active region (hereinafter TSAR) as used in the Applicant's specification.

9. Paragraphs 8 and 9 of the current specification both state, "display elements include active regions **that correspond** in size to a human finger tip contact area." Paragraph 21 also states "[t]he pressure can be used to further define the contact area or point." Finally the withdrawn claim 16 states, "the active region correspond[s] in size to a human finger tip contact area."

10. Notably lacking from any mention of "contact area" in the disclosure is any mention that a TSAR comprises a contact area. As discussed in the previous office

action, the Applicant's disclosure makes it clear that the contact area corresponds to the space on the display that the user presses a finger. This area is likely to an oval or circular space as this is the shape of a human fingertip. The contact area is separate and distinct from the TSAR which is defined as the rectangular areas 410A-F in figure 4.

11. Applicants have pointed to paragraph 21 as providing support for the newly added claim limitations. The relevant phrase seems to be, "pressure can be used to define further the contact area or point." As discussed above there is no disclosed connection between the TSAR and the contact area. Rather the more reasonable and supported interpretation of the above phrase, is that the X and Y coordinates will only provide a single point. The incorporation of a pressure amount will allow a more accurate location of the touch to be determined.

12. Applicants seem to continue to advance an argument that the application supports adjusting the TSAR depending on a size of the contact area which is simply not supported by the disclosure.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claims 1-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki et al. (US 7,123,243) in view of Szukala et al. (US 6,801,849) and further in view of Barker (US 6,314,422) and Beaton et al. (US 6,310,610).

With respect to claim 1, Kawasaki discloses, a non-transitory computer-readable storage medium for storing instructions for invoking a function of an instrument (fig. 5), the code, once executed, causing the instrument to display:

a first navigational menu (12a in fig. 5) including at least one display element (51 in fig. 5), the at least one display element having a touch sensitive active region therein (box surrounding the graphic in 51 in fig. 5) and a graphical representation of functionality invoked via user selection of the display element by user contact with the touch sensitive active region (graphic and box in 51 in fig. 5), the display element and the touch sensitive active region being located on the same surface of a display screen of the diagnostic instrument (fig. 5 discloses a display element (graphic and box) which also contains a touch sensitive active region that are located on the same surface of the device; note col. 6, lines 12-16; "the user performs an input operation by touching with the finger or pen to these touch keys." From fig. 5, the display element (icon, 51) and the touch sensitive active region the (box, 51) are located on the same surface, as the user can select the icon with their finger from the figure 5 view); and

an instrument identity banner including details of the type (pioneer label in fig. 2) and status (volume is at step 18 in fig. 2) of the instrument.

Kawasaki does not expressly disclose, that the interface is for a diagnostic instrument, a second navigational menu or displaying the status of the instrument.

Szukala discloses a touch user interface (fig. 7a-b) for invoking a function of a diagnostic instrument (engine diagnostic), the user interface comprising:

a first navigational menu (fig. 7a-b) including at least one display element (each menu selection, static info…); and

a second navigational menu (fig. 11, for example) configured to be displayed responsive to contact on the touch sensitive active region of the at least one display element (Static Tests icon in fig. 7b), the second navigational menu including a selection group related to a test suite of the diagnostic instrument (fuel injector, ignition firing etc. in fig. 11); and

an instrument identity banner including details of the type (each display has a title which identifies what the current instrument of the device being used is; "Engine reporting" in fig. 14b) and status (“working” in fig. 14b) of the diagnostic instrument.

Kawasaki and Szukala are analogous art because they are both from the same field of endeavor namely design of PDA touch user interfaces.

At the time of the invention it would have been obvious to one of ordinary skill in the art to use the instrument of Kawasaki as a diagnostic tool and include a second navigational menu as taught by Szukala.

The motivation for doing so would have been the need for a portable engine diagnostic device (Szukala; col. 2, lines 15-17) as well as the well-known benefit of providing a main menu and submenus to help a user more quickly reach the function they desire.

Kawasaki and Szukala do not explicitly disclose an instrument identity banner including details of the type and status of the diagnostic instrument.

Barker discloses a user interface for a diagnostic instrument comprising, an instrument identity banner (top of 70 in fig. 6) including details of the type (TSBs/Recalls and/or 1996 Intrepid and/or the VIN and/or tech name in fig. 6) and status (Status: disconnected in fig. 6) of the diagnostic instrument (fig. 2, for example).

Barker, Kawasaki and Szukala are analogous art because they are both from the same field of endeavor namely design of user interfaces.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the type and status information in a banner on the interface of Kawasaki and Szukala as taught by Barker.

The motivation for doing so would have been the well-known advantage of providing the user quick “at-a-glance” basic information and providing quick easy location of the desired information (Barker, col. 6, lines 34-55).

Neither Kawasaki, Szukala nor Barker disclose, wherein the touch sensitive active region is pressure sensitive, and the touch sensitive active region is defined responsive to a pressure applied to the display screen by the user contact with the display element.

Beaton discloses, **wherein a contact area of the touch sensitive active region corresponds in size to a human finger tip contact area (col. 6, lines 40-43; “dialogues that are finger-touchable”); and**

wherein the touch sensitive active region is pressure sensitive (col. 7, lines 3-19), and **the contact area** of the touch sensitive active region is **further** defined responsive to a pressure applied to the display screen by the user contact with the display element

(col. 6, lines 30-37; the contact area of the touch sensitive active region will change depending on the pressure applied).

Beaton, Barker, Kawasaki and Szukala are analogous art because they are both from the same field of endeavor namely design of user interfaces.

At the time of the invention it would have been obvious to one of ordinary skill in the art to use the pressure sensitive device and define the active region as taught by Beaton in the device of Kawasaki for the benefit of an improved GUI (Beaton; col. 2, lines 11-14).

With respect to claim 2, Barker, Kawasaki, Beaton and Szukala disclose, the medium of claim 1 (see above).

Kawasaki, when combined with Szukala, further discloses, wherein the selection group includes a plurality of display elements (Szukala; fuel injector, ignition firing etc in fig. 11), each of the plurality of display elements having a touch sensitive active region to enable user selection of the plurality of display elements (Szukala; col. 13, lines 1-9).

With respect to claim 3, Barker, Kawasaki, Beaton and Szukala disclose, the medium of claim 1 (see above).

Kawasaki, when combined with Szukala, further discloses, wherein the selection group includes fewer than ten display elements to permit discrete touch sensitive selection of each of the fewer than ten display elements (Szukala; only 5 in fig. 11).

With respect to claim 4, Barker, Kawasaki, Beaton and Szukala disclose, the medium of claim 1 (see above).

Kawasaki further discloses, wherein the first navigational menu includes at least six display elements (nine in fig. 5), each of the at least six display elements having a discrete touch sensitive active region sized to permit finger tip selection (note the size of the icons in fig. 2 and their relation to the user's finger tips).

With respect to claims 7, Barker, Kawasaki, Beaton and Szukala disclose, the medium of claim 1 (see above).

Kawasaki further discloses, wherein the touch sensitive active region comprises an area having a polygonal shape (rectangle) of at least 1/4 square inch (see finger sized relation to the icon size in fig. 2, icons in fig. 2 are even smaller than icons shown in fig. 11).

15. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki et al. (US 7,123,243) in view of Szukala et al. (US 6,801,849), Barker (US 6,314,422), Beaton et al. (US 6,310,610) and further in view of Banks et al. (US 6,603,494).

With respect to claim 5, Barker, Kawasaki, Beaton and Szukala disclose, the medium of claim 1 (see above).

Neither Kawasaki, Barker nor Szukala expressly disclose including a textual description of the functionality with the graphic.

Banks discloses, a diagnostic instrument, comprising a touch-based user interface, wherein at least one display element comprises

a textual description of functionality invoked by user selection of the display element (schedule, close, analyze, for example in fig. 5).

Banks, Kawasaki, Barker, Beaton and Szukala are analogous art because they are from the same field of endeavor namely design of touch user interfaces.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include textual descriptions alongside the graphics of Kawasaki, Szukala, and Barker.

The motivation for doing so would have been the well-known benefit of removing any question in the user's mind what the graphic represents.

16. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki et al. (US 7,123,243) in view of Szukala et al. (US 6,801,849), Barker (US 6,314,422), Beaton et al. (US 6,310,610) and further in view of Debrus et al. (US 5,598,527).

With respect to claim 6, Barker, Kawasaki, Beaton and Szukala disclose, the medium of claim 1 (see above).

Kawasaki further discloses, wherein the touch sensitive active region comprises a circular area with a diameter of at least 3/8 inch (3/8 inch diameter is almost half the size of a dime; Kawasaki discloses a space at the *very* least that large as seen in fig. 2).

Kawasaki, Barker and Szukala do not expressly disclose wherein the touch sensitive active region comprises an approximately circular shape.

Debrus discloses, a touch sensitive device wherein a touch sensitive active region (13-20 in fig. 1) comprises an approximately circular shape (see fig. 1) with a diameter of at least 3/8 inch (col. 3, lines 27-30; 47 is approx. 6 inches long which equates to at least a diameter of at least 6/8 of an inch).

Debrus, Kawasaki, Barker, Beaton and Szukala are analogous art because they are from the same field of endeavor namely, touch screen device design and implementation.

At the time of the invention it would have been obvious to one of ordinary skill in the art to size the display elements of Kawasaki, Barker and Szukala to permit finger tip selection as taught by Debrus.

The motivation for doing so would have been the well known benefit of allowing the user to more easily locate the icons.

The currently claimed differences in shape over Kawasaki and Szukala in view of Debrus are not seen as patentably distinct from the prior art. In short, whether the touch regions are polygons or circular is immaterial and insignificant. The device will not perform differently should the user inter face use polygons or circular shapes for the touch regions. The Applicant is directed to section 2144.04.IV.A-B of the MPEP.

17. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki et al. (US 7,123,243) in view of Szukala et al. (US 6,801,849), Barker (US 6,314,422), Beaton et al. (US 6,310,610) and further in view of Ross et al. (US 5,859,628).

With respect to claim 8, Barker, Kawasaki, Ross, Beaton and Szukala disclose, the medium of claim 1 (see above).

Neither Kawasaki, Barker nor Szukala expressly disclose, wherein the touch sensitive active region comprises at least 1/10 of the screen area.

Ross discloses, a user interface (fig. 6d), and that the touch sensitive active region comprises at least 1/10 of the screen area (also clear from fig. 6d).

Ross, Kawasaki, Barker, Beaton and Szukala are analogous art because they are from the same field of endeavor namely, touch screen device design and implementation.

At the time of the invention it would have been obvious to one of ordinary skill in the art to size the display elements of Kawasaki, Barker and Szukala to span the entire display area as taught by Ross.

The motivation for doing so would have been to allow the user to more easily recognize the icons and text of the screen (Ross; col. 7, lines 11-12; for example).

18. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki et al. (US 7,123,243) in view of Szukala et al. (US 6,801,849), Barker (US 6,314,422), Beaton et al. (US 6,310,610) and further in view of Cross et al. (US 7,154,481).

With respect to claim 9, Barker, Kawasaki, Cross, Beaton and Szukala disclose, the medium of claim 1 (see above).

Neither Kawasaki, Barker nor Szukala expressly disclose, wherein the first and second navigational menus are displayed on a touch screen device sized and positioned so as to be responsive to a gloved finger.

Cross discloses a touch screen wherein the device is sized and positioned so as to be responsive to a gloved finger (col. 4, lines 47-49).

Cross, Kawasaki, Barker, Beaton and Szukala are analogous art because they are from the same field of endeavor namely, touch screen device design and implementation.

At the time of the invention it would have been obvious to one of ordinary skill in the art to construct the touch screen of Kawasaki, Barker and Szukala in the manner of Cross to ensure that the device is responsive to a gloved finger.

The motivation for doing so would have been as a convenience and ease of use to the user to not have to remove any gloves in order to operate the machine (Cross; col. 1, lines 57-61).

Conclusion

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM L. BODDIE whose telephone number is (571)272-0666. The examiner can normally be reached on Monday through Friday, 7:30 - 4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William L Boddie/
Primary Examiner, Art Unit 2629
9/22/2011